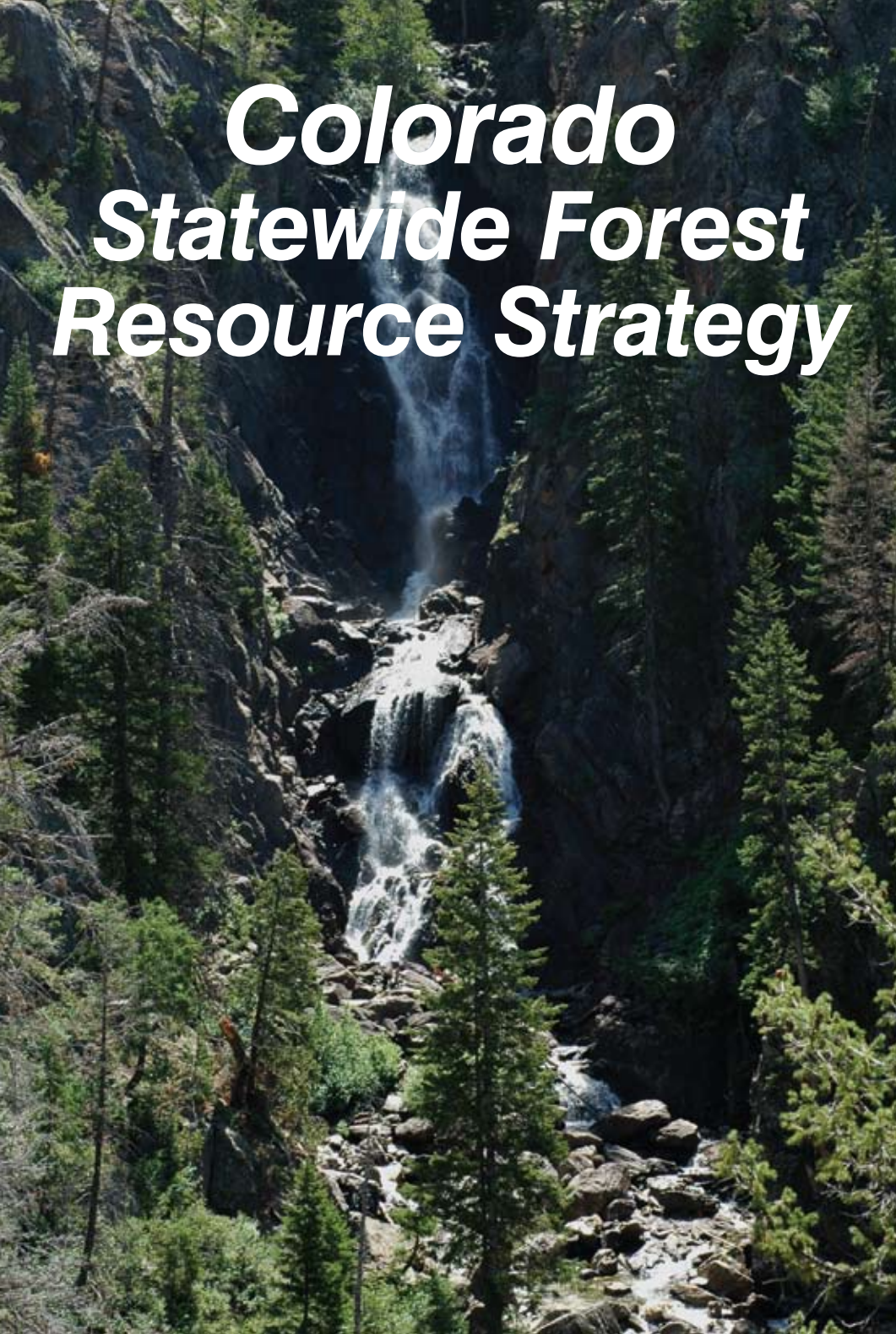


# Colorado Statewide Forest Resource Strategy





**June 2010**

## **Acknowledgments**

The Colorado State Forest Service thanks Joe Duda, project lead and CSFS Forest Management Division supervisor; Naomi Marcus, assistant staff forester, CSFS Forest Management Division; and Katherine Timm, CSFS Outreach Division supervisor, for providing leadership and oversight throughout the development of the Colorado Statewide Forest Resource Strategy.

We also offer our thanks and acknowledgement to Greg Sundstrom, assistant staff forester, CSFS Forest Management Division, for reviewing and providing additional input on the strategy, and The Conservation Cooperative for organizing and facilitating the regional focus group meetings, and providing summaries of the discussions that provided the foundation for the development of the statewide strategy. The many partners who participated in the focus group discussions and provided thoughtful feedback on the draft strategies also deserve our recognition and thanks.

Additional thanks to Colorado State Forest Service district personnel and leadership for providing guidance and input on the process for development of the statewide strategy, and to Judy Serby, Conservation Education program manager, CSFS Outreach Division, for production of this report.

All photos in this document are the property of the Colorado State Forest Service except where otherwise indicated. Cover photo of Fish Creek Falls courtesy of Bill Ciesla.

# Introduction

The Colorado State Forest Service (CSFS) and citizens of Colorado are concerned with the condition of our state's forests. A comprehensive approach to forest management that capitalizes on our collective knowledge and resources is imperative to ensure that Colorado's forests remain productive and resilient for present and future generations.

The Colorado State Forest Service recognized the need to take a comprehensive look at our diverse forests, the benefits they provide and the resources available to support our important forest landscapes. The CSFS also recognized the importance of engaging other stakeholders in discussions regarding the development of a statewide forest resource strategy. Those discussions, combined with the best available science, made it clear that the issues threatening our forests, and the limited resources available to address those issues, demanded a comprehensive approach to forest resource management and conservation to ensure

that our forests provide benefits now and in the future.

The Colorado Statewide Forest Resource Strategy (strategy) is the plan that builds on and accompanies the Colorado Statewide Forest Resource Assessment (assessment). The assessment and strategy identify important forest lands and provide strategic direction for the distribution of limited resources. Focusing and leveraging additional resources on important landscapes identified in the assessment will help reduce the threats to Colorado's forest lands and increase the benefits these landscapes provide.

The strategy was developed in cooperation with the many stakeholders concerned about Colorado's forests who also support the CSFS in its mission to provide forest stewardship. The strategy provides a platform for the CSFS and its partners to focus efforts on important forest landscapes and leverage limited resources to achieve positive and significant results on all types of forest lands — from urban and community forests to forested wildlands.



*The left side of the photo shows where fuels treatments have occurred on the Pikes Peak watershed; the area on the right has not been treated.*



# Executive Summary

Colorado's forests are at risk from threats that impact their ability to provide environmental, social and economic benefits now and in the future. Because limited resources are available to address these threats, it is imperative that we direct them where they will result in the greatest benefit.

Threats include:

1. fragmentation of forest landscapes
2. decline in businesses that harvest and manufacture forest products
3. insect and disease activity in forests at levels unprecedented in Colorado's recorded history
4. wildfire in the wildland-urban interface
5. wildfire outside the wildland-urban interface
6. community forests at risk to insects and diseases
7. impacts of climatic conditions on forest resiliency and adaptability
8. watersheds at risk from forest conditions
9. decline of riparian ecosystems
10. air quality issues



*Mountain pine beetle-killed trees on Rabbit Ears Pass.*

In December 2009, the CSFS published the Colorado Statewide Forest Resource Assessment, which spatially identifies important forest resource areas in Colorado. The assessment provided the foundation for development of the statewide strategy. The resulting document describes threats to our forest resources, lists strategies to address the threats, suggests some tactics to accomplish strategies, and identifies partners and resources that can be engaged and leveraged to help implement the strategies. Together, the assessment and strategy provide a comprehensive overview of Colorado's important forest resources, and the

approaches that should be employed to conserve, protect and enhance our forest lands.

The Colorado State Forest Service conducted an inclusive process to develop this strategy, inviting 550 interested stakeholders to participate in facilitated focus group meetings in Fort Collins, Steamboat Springs, Durango, Salida, Glenwood Springs and Colorado Springs.



*The Big Fish Fire 34 miles southwest of Steamboat Springs.*

Focus group participants were asked to review the threats to ensure the list was inclusive, provide input to help develop strategies that address these threats, identify resources that currently are available and/or are needed, and list partners and other resources that can be engaged and leveraged. The information provided by focus group participants and additional comments received through a review process was combined with input from CSFS personnel to create the current strategy document.

The mission of the Colorado State Forest Service is to "provide for the stewardship of forest resources and to reduce related risks to life, property and the environment for the benefit of present and future generations." The information contained in this document is our first comprehensive statewide effort to address issues associated with our forests, and will assist us in achieving our mission.

This strategy is considered a dynamic document and will be reviewed and revised a minimum of once every five years, or more often as conditions warrant. The strategies included herein are proactive, and we look forward to working with our partners to achieve outcomes that will benefit Colorado's forests for present and future generations.

# Project Background

Decreased availability of resources, including funding, and an increasing pressure on forests are posing challenges at the state and national levels. Realizing these challenges, in 2007, the USDA Forest Service (USFS) sought a way to better shape and influence use of forest land on a scale, and in a way, that would optimize public benefit for current and future generations. With this goal in mind, the USFS State and Private Forestry (S&PF) Program Redesign Initiative (Redesign Initiative) was introduced. This program seeks to “improve the ability to identify the greatest threats to forest sustainability and accomplish meaningful change in high-priority areas.”

As part of the Redesign Initiative, and required in the 2008 Farm Bill, each state must:

- Complete a statewide forest resource assessment — an analysis of forest conditions and trends in the state, and prioritization of rural and urban forest landscape areas.
- Develop a statewide forest resource strategy — a set of long-term strategies for investing state, federal and other resources to manage priority landscapes identified in the assessment, focusing on areas in which federal investment can most effectively stimulate or leverage desired actions and engage multiple partners.

To guide the process, the USFS identified the following three national themes and associated management objectives that will be used to direct S&PF funds:

CONSERVE working forest landscapes.

- Identify and conserve high-priority forest ecosystems and landscapes.
- Actively and sustainably manage forests.

PROTECT forests from harm.

- Restore fire-adapted lands and reduce risk of wildfire impacts.
- Identify, manage and reduce threats to forest and ecosystem health.

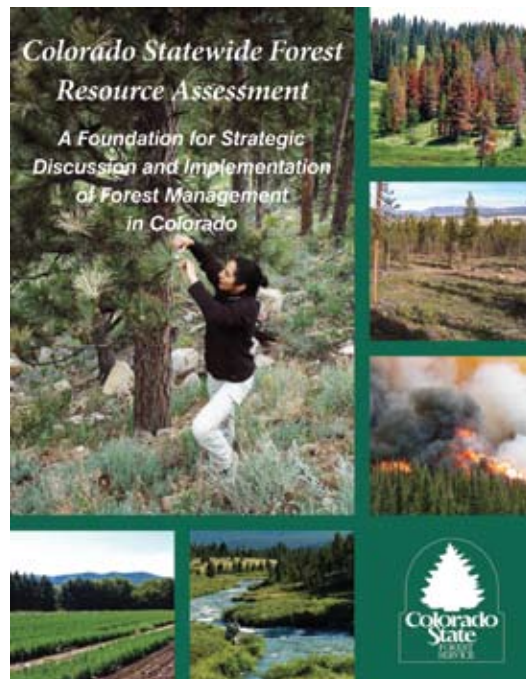
ENHANCE public benefits from trees and forests.

- Protect and enhance water quality and quantity.
- Improve air quality and conserve energy.
- Assist communities in planning for and reducing wildfire risks.

- Maintain and enhance the economic benefits and values of trees and forests.
- Protect, conserve and enhance wildlife and fish habitat.
- Connect people to trees and forests.
- Manage and restore trees and forests to mitigate and adapt to global climate change.

The CSFS embraced the Redesign Initiative, and used the themes and objectives to guide the Colorado assessment and strategy processes.

The CSFS first completed the assessment with assistance through a contract with The Nature Conservancy. The CSFS then organized, tabulated and analyzed available statewide data to identify important forest landscapes associated with the national themes and objectives. The CSFS convened an oversight committee composed of land managers and scientists to ensure that all available data was included, and the assessment process was conducted in a fair and informed manner. A thorough description of the assessment process and results is available at <http://csfs.colostate.edu/pages/statewide-forest-assessment.html>.



Following the completion of the statewide assessment, the CSFS embarked on the development of its statewide forest resource strategy. The CSFS identified 10 threats to our forest resources that provided the basis for discussions that followed. Six regional focus group meetings were held to seek and consider input from partners and stakeholders regarding statewide strategies, resources and partners.

# Methodology

## Colorado Statewide Forest Resource Assessment

The first step in the process was to develop the Colorado Statewide Forest Resource Assessment under the leadership of the CSFS, and in accordance with national direction issued jointly by the USFS and the National Association of State Foresters (NASF). A GIS-based spatial analysis was used to develop the assessment, which identified, described and spatially defined important landscape areas where forestry outreach and activities will be emphasized and coordinated.

As noted earlier in this document, guidance for development of the assessment originated from the Redesign Initiative (USFS 2008), which encourages greater collaboration among all forestry partners to improve outcomes on the ground. According to the Redesign Initiative, the purpose of the assessment is to:

- Ensure that federal and state resources are being focused on important landscape areas with the greatest opportunity to address shared management priorities and achieve measurable outcomes. Each state and territory will work collaboratively with key partners and stakeholders to develop a statewide forest resource assessment.
- Provide a comprehensive analysis of the forest-related conditions, trends, threats and opportunities on all lands within the state.
- Provide a combination of qualitative, quantitative and geospatial data that can be used in the statewide assessment. Non-geospatial information can be used in combination with geospatial data to identify priorities. States may identify separate priority areas for different programs and issues.

The establishment of these priority areas was intended to promote efficient, strategic and focused use of limited program resources; address current state and national resource management priorities; and produce the greatest results in terms of critical forest resource values and public benefits (USFS 2008).

## Use of the Colorado Statewide Forest Resource Assessment

It is important to note that the assessment is a tool developed at a statewide scale for a specific purpose. The purpose of the assessment is to "... ensure that federal resources are focused on landscape areas with the greatest opportunity to address shared priorities and achieve measurable outcomes" (CSFS 2009). When evaluating the use of the assessment, it is important to understand scale and use relative to its application to local forest and fire planning efforts.

The assessment was completed at the sixth-level, 12-digit hydrologic unit code sub-watershed, which typically is 10,000 to 40,000 acres (NRCS Overview and History of Hydrologic Units and the Watershed Boundary Dataset). This large-scale approach does not lend itself to comparative analysis at any finer scale than the county level.

*The Colorado Statewide Forest Resource Assessment identifies important priority forest landscapes. The Colorado Statewide Forest Resource Strategy identifies the methods to address these important priority landscapes. Together, these two documents provide a landscape-level approach to distributing limited resources where they will achieve the greatest benefit.*

Therefore, the assessment does not identify specific places as priority landscapes below the sixth-level watershed. It is appropriate to use the assessment for broad-scope project planning at any level. However, it would be inappropriate to use the assessment at any scale below a sixth-level watershed for specific project details and tactical development and analysis. For guidance on the scale of sixth-level watersheds, refer to <http://www.ncgc.nrcs.usda.gov/products/datasets/watershed/history.html>

The assessment is a state-level guide that identifies important forest landscapes and assists the CSFS and others to determine where to focus efforts to achieve their objectives. It would be an inappropriate



use of the assessment to develop specific activities intended to meet specific forest management targets in important landscapes. The CSFS encourages project planning by local resource managers with an understanding of local issues and concerns using site-specific data.

While the final analysis maps in the assessment may identify important forest landscapes in need of forest management, effective identification of tactical forest and fire management at a county or sub-county level requires the engagement of local resource managers. The assessment may function as a guide

for local resource managers at the watershed, county or sub-county level to create plans that evaluate and develop specific management recommendations, targets, timelines and outcomes that address important landscapes.

### **Identified Threats**

Following the completion of the assessment, the CSFS identified 10 threats to Colorado's important forest resource areas. These threats represent major issues and challenges Colorado's forests face.

#### **Threats Grouped by National Theme**

|  |  |
|--|--|
| <b>CONSERVE</b><br>working forest landscapes             | Fragmentation of forest landscapes and their conversion to non-forest uses     |
|  | Loss of forest products manufacturing capacity                                 |
| <b>PROTECT</b><br>forests from harm                      | Unprecedented levels of forest insect and disease activity                     |
|  | Threat of wildfire in the wildland-urban interface                             |
|  | Threat of wildfire outside the wildland-urban interface                        |
|  | Community forests at risk to insects and diseases                              |
| <b>ENHANCE</b><br>public benefits from trees and forests | Forest resiliency and adaptability at risk due to changing climatic conditions |
|  | Declining forest watershed health  |
|  | Declining riparian ecosystems  |
|  | Air quality issues associated with forest conditions                           |

## Focus Groups

After completion of the assessment and identification of threats to Colorado's forests, the CSFS conducted a series of regional focus group discussions in March and April 2010. Input from these discussions with partners and stakeholders aided in the identification of strategies and opportunities to coordinate forest stewardship activities across jurisdictional boundaries in Colorado and across state lines. Focus group meetings were held in Fort Collins, Steamboat Springs, Durango, Glenwood Springs, Salida and Colorado Springs.

Invitations were sent to 550 individuals identified as partners or stakeholders. The CSFS provided a list of recommendations from CSFS district foresters to develop an initial list of focus group invitees. CSFS staff provided names of additional stakeholders identified from conferences and meetings held in Colorado in 2009 and 2010. As the process evolved, the CSFS worked with other partners to further expand the list of invitees for the focus group meetings. Participants included representatives from the forest industry, Colorado State Forest Service, federal agencies, state and local governments, non-governmental conservation organizations, local forestry collaboratives, private landowners, and local community members and decision-makers.

Regional strategy focus groups concentrated on the following discussion framework regarding development of the statewide strategy:

1. **Threats:** Threats to Colorado's important forest landscapes
2. **Strategy:** Strategic guidance, not site-specific management recommendations
3. **Existing Resources/Resource Needs:** Resources available and resources needed to accomplish the strategies
4. **Partners/Stakeholders:** Partners that will be essential in leveraging and acquiring additional resources
5. **Monitoring/Revision:** Review and revise the strategy a minimum of once every five years or as needed according to adjustments in the state's threats and resource needs
6. **Interstate Collaboration:** Work collaboratively with other states to address similar threats across state boundaries

Focus group meetings included an introduction to the assessment and the threats to our forest landscapes that the CSFS identified; a review of

the current status of the assessment process; and small-group discussions. Participants were divided into groups and each focused on threats organized under the three national themes – conserve, protect and enhance. Focus group participants agreed that the identified threats are representative of the challenges Colorado's forests face.

Strategy discussions were directed by the following questions:

1. What broad-scope strategies are necessary to address the threats?
2. Which partners currently are involved in implementing tactics to support suggested strategies?
3. What other partners should be engaged?
4. What resources exist to implement strategies and associated tactics?
5. What additional resources can be leveraged?

The information generated from the regional focus group discussions provided valuable input to the development of the strategies presented in this document.

## Outreach to State Partners

States were required, at a minimum, to coordinate with the Colorado State Forest Stewardship Coordinating Committee, Colorado Division of Wildlife, State Technical Committee, Tribes and applicable federal land management agencies to develop the assessment and strategy. In addition, the CSFS considered input and recommendations from other statewide partners to ensure that this strategy will integrate, build upon and complement other natural resource plans.

The Conservation Cooperative compiled the strategies and resource information provided from input gathered at the six regional focus group meetings and organized it according to the 10 threats identified in the assessment. The CSFS then distributed this information to the following partners throughout the state to solicit additional comments:

- Bureau of Land Management
- Colorado Division of Wildlife
- Colorado Forest Health Advisory Council
- Colorado State Forest Stewardship Coordinating Committee
- Natural Resource Conservation Service



- Southern Ute Tribe
- USDA Forest Service
- Ute Mountain Ute Tribe

The information also was distributed to focus group meeting participants to verify the accurate interpretation of the strategies and seek additional ideas. In addition, the information was posted on the CSFS website so other interested stakeholders could review and comment on the draft strategies.

Additional feedback was incorporated into the existing strategy list. Results of outreach to statewide partners and stakeholders are described in the Overarching Strategies and Strategies sections of this document.

## **Additional Resources Referenced**

According to the Redesign Initiative and the Cooperative Forestry Assistance Act, as amended and authorized in the 2008 Farm Bill, states are encouraged to “incorporate existing statewide forest and resource management plans” into their strategies. The CSFS also referenced several additional resources prior to development of the statewide strategy, including information developed by local or landscape-scale forestry collaboratives, Community Wildfire Protection Plans and other organizational plans, including wildlife action plans, open space plans and urban forest management plans. These plans will be used to facilitate future statewide monitoring and implementation of statewide forest management efforts.

## **Community Wildfire Protection Plans**

Colorado has an active Community Wildfire Protection Plan (CWPP) program (See <http://csfs.colostate.edu/pages/CommunityWildfireProtectionPlans.html> for an up-to-date listing of CWPPs throughout the state). More than 150 CWPPs have been developed in Colorado since they were authorized by the Healthy Forests Restoration Act in 2003. CWPPs resulted in the identification of priority areas for forest management to protect communities, their citizens, and resources and values. CWPPs also have facilitated coordination of fire mitigation efforts across jurisdictional boundaries (i.e. private, state and/or federal lands).

CWPPs of varying geographic scales were established in 42 of Colorado’s 64 counties. The majority of Colorado’s CWPPs prioritize forest management needs across large geographic areas. Of these plans, 37 were developed as county-level plans. These plans provide the largest geographic coverage and coordinate actions across federal and private lands. Forty-two CWPPs are organized around fire protection districts, which often take a landscape-scale approach and allow better coordination across jurisdictional boundaries. Thirteen CWPPs were developed at the municipal level in areas where a city or town is at risk from wildfire in the surrounding wildland-urban interface, and 56 CWPPs in Colorado were developed at the neighborhood or community scale by informal community organizations and homeowner or property-owner associations.

Information contained in this document supports and enhances fire mitigation strategies identified in CWPPs. Using CWPPs, data from the assessment and information in the strategy collectively enhances the ability to implement wildfire mitigation efforts in important resource areas. The established partnerships created through the development of CWPPs provide the CSFS with another tool to successfully implement forest management activities on a local scale to address fire mitigation in important forest resource areas identified in the assessment.

## **Place-based Forestry Collaboratives**

The CSFS identified 18 place-based forestry collaboratives in Colorado associated with forest management. All of the organizations provide some level of collaboration and coordination between agencies associated with forest management, local government, non-governmental organizations, forest products users and community members. Although these forestry collaboratives address forest management and forest health issues in a variety of ways, nearly all focus on public outreach and education. Some focus on fire mitigation or are active in monitoring forest condition and implementing forest management, while others focus on policy change to promote forest restoration efforts (CFRI 2008; CFRI 2009).

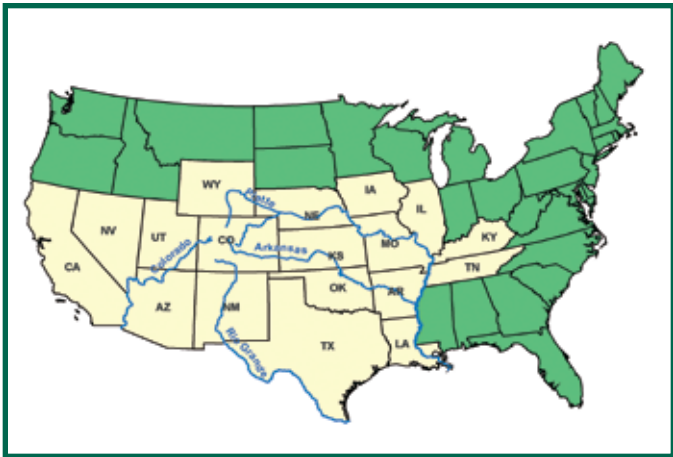
The Colorado Forest Restoration Institute (CFRI) in the Warner College of Natural Resources at Colorado State University conducted two annual

surveys of forestry collaboratives in Colorado for the Colorado Forest Health Advisory Council. In 2008, CFRI surveyed six organizations; a second survey of 14 organizations was conducted in 2009 (Appendix A). An additional five forestry collaboratives also have been identified in Appendix A. The surveys provide an overview of the missions, accomplishments and challenges these organizations face as they seek to provide social, economic and ecological benefits to their communities and landscapes.

## Interstate Collaboration

In addition to in-state forest resource collaborative plans, the CSFS recognizes the value of collaborating with neighboring states (Wyoming, Nebraska, Kansas, Oklahoma, New Mexico, Arizona and Utah) when addressing threats to forest resources. Because forest landscapes cross state boundaries, threats to those resources in our state are likely to be a concern to our neighbors.

Colorado's rivers provide water to 18 states, so it is essential to protect our watersheds from wildfire, insects and diseases, fragmentation, invasive species and dynamic climatic conditions. Addressing issues that impact the adaptability and resiliency of Colorado's forests will have a positive effect on our neighboring states' environment.



*Eighteen states derive their water from Colorado's high-country watersheds.*

Forest pests such as bark beetles and pathogens such as dwarf mistletoe primarily are limited by available host tree species, size and proximity to current activity. Working with our neighbors can enhance our ability to achieve the strategies identified, and effectively respond to the insect and diseases that threaten our forests. Appropriately placed forest product quarantines and regulations

that limit movement of wood products from infested areas to uninfested areas are just two examples of how states can work together to protect the value of forest stands and the availability of associated products for wood-processing businesses and end users.

If efforts to protect forests from insect and disease activity include forest management adjacent to and across state lines, wildfire risk will be reduced. Inevitably, management of our Western forests will enhance their resiliency and adaptability to natural disturbances. Additionally, watersheds and water supply infrastructure will be more effectively protected. Colorado supplies water to many other states, so protection of important watersheds is critical.

It is not enough for Colorado alone to reduce fragmentation. Neighboring states that address the threat of fragmentation by managing areas as larger contiguous parcels will help support the health of Colorado's forests and watersheds, and protect communities, life, property and infrastructure. An interagency approach makes it ever more important for federal land management agencies to work closely with private landowners to achieve forest management that crosses state lines and ownership boundaries.

During the development of the strategy, the CSFS remained informed about the development of neighboring states' strategies. As Colorado and neighboring states complete their respective statewide forest resource strategies, the CSFS will be diligent in pursuing collaborative opportunities to share experiences, opportunities and resources.

## Overarching Strategies

During the strategy development process, 10 overarching strategies emerged from discussions. These strategies apply to all or nearly all of the threats the CSFS identified. Where variations occur, application of these strategies will be noted as tactics under specific threats. The following list of overarching strategies does not imply priority order of importance.

- Manage forests according to appropriate science-based information to enhance multiple resource values.
- Promote active forest management to achieve desired short- and long-term conditions that provide for and enhance species, age class



and structural diversity to improve resiliency and adaptability as climatic conditions change.

- Develop a strategic marketing and communications plan to promote the benefits of managing forest resources.
- Create, promote and sustain a viable forest products industry by ensuring a predictable, dependable timber supply.
- Use collaborative processes to coordinate planning and implementation of forest management across ownerships to protect communities, natural resources and important infrastructure.
- Utilize the Colorado Statewide Forest Resource Assessment to support planning and implementation of forest management.
- Focus on-the-ground efforts to leverage resources.
- Work with neighboring states to conserve working forest lands.
- Restore ecosystem function at an appropriate scale to achieve desired future conditions.
- Reduce process impediments that hinder the implementation of forest management and drive up costs.

## Strategies

The next set of strategies addresses the threats categorized under each of the three national themes as presented to the regional focus groups. Corresponding strategies and tactics are listed with each theme. The presentation of threats and the associated strategies that follow is not meant to imply order of importance.

### Theme: Conserve Working Forest Lands

#### Threat — Fragmentation of Forest Landscapes

Fragmentation of forest landscapes and their conversion to non-forest uses is a growing threat. Forest fragmentation occurs when forests are divided into smaller blocks. "Fragmentation is a complex phenomenon resulting from dynamic interactions between the natural landscape and society's ever-increasing demands on the land, creating a mosaic of natural and human-modified environments." (Tyrell 2000). A road bisecting a forest, urban sprawl and other factors can result in fragmentation. No universal set of quantifying factors exists that define fragmentation.



*Continuous population growth fragments many of Colorado's forest lands.*

Forest fragmentation can adversely affect wildlife habitat, biodiversity, watershed function, and the ability to effectively manage forests and safely respond to wildfires. Smaller parcels are significantly more expensive to manage and can limit the ability to achieve land-management objectives at the landscape scale. The CSFS administers Forest Legacy, Forest Stewardship, Forest Agriculture for Tax Status, and other state and federal programs to help conserve working forest lands. The CSFS encourages landowners to reduce the extent of forest fragmentation and maintain their forested properties as healthy, productive lands. Conservation easement programs, property tax reform, regional land-use planning, zoning policies and greenways all can limit fragmentation.

Innovative voluntary programs are needed to engage and assist private landowners in cooperative forest management. Education and outreach programs that communicate the importance of viable forest ecosystems and a viable forest products industry are imperative to reduce fragmentation and effectively conserve working forest lands.

#### Threat — Loss of Forest Products Manufacturing Capacity

Over the last 15 years, Colorado experienced a significant decline in businesses that harvest and manufacture wood products. Facility closures have directly affected our ability to conduct forest management activities and meet land management objectives. Forest products businesses and the markets they create for wood help offset forest management costs, which are especially high

in the wildland-urban interface. On an annual basis, more than 90 percent of the forest products Colorado uses are imported from other states or countries. Forest products businesses provide local employment, support economic diversity, provide products for use in Colorado, retain dollars and help us achieve our forest management objectives. These businesses are important, especially across rural forest-dependent communities in Colorado where they provide a tax base that helps support local communities and schools. They also provide forest management that benefits wildlife, recreation, viewsheds and overall forest health.

The decline of forest products businesses primarily was driven by a reduction of forest management projects on federal lands. This was especially critical in Colorado where 68 percent of the forest landscape is federally owned.

In recent years, the Colorado legislature and the public have realized the need for and benefits of forest management on the landscape. A consistent, reliable, affordable supply of forest products is necessary to sustain local businesses and investments. The CSFS supports local governments, communities, collaboratives, businesses and other groups seeking solutions to this issue. All decisions regarding Colorado's forest lands, whether they include management or non-management objectives, have distinct outcomes. Understanding these outcomes and how they align with future objectives is essential to long-term success.

**Strategies:**

- Support programs to prevent fragmentation.
- Support programs to maintain family forests as working forest lands.



*Management activity on the King property in Lake County, Colorado, resulted in healthier forest conditions.*

- Promote multiple resource management and wood utilization on forest lands, including lands under conservation easements, to provide raw material to local businesses.
- Enhance and maintain community forests to promote their benefits.



*Tree planting in Carbondale, Colorado.*

- Support programs to reduce conversion of community forest lands.
- Promote forest products business interests to improve economic opportunities on forest lands.
- Support forest management to ensure a consistent flow of wood products across land ownerships.
- Promote a consistent supply of forest resources from all available forest lands to support local businesses and consumers.



*Forest products businesses provide local employment and support economic diversity in Colorado.*





*Fuels treatment on the Bosque del Oso State Wildlife Area.*

- Expand markets and provide incentives for Colorado's forest products.
- Initiate stewardship contracts to provide a consistent, reliable flow of forest products.



*Homeowners examine roadside fuels treatments.*

### **Tactics:**

- Fully implement national forest plans.
- Collaborate with homeowners associations to implement forest management.
- Create larger management units by combining activities across small-acreage properties.
- Pursue land exchanges/transactions that result in larger, more manageable units.
- Use planning and zoning initiatives to conserve forested tracts on a functional scale and reduce watershed fragmentation.
- Use existing conservation easement programs.
- Promote and support the Colorado Forest Agriculture for Tax Status Program to conserve working forest lands.

- Engage conservation organizations/land trusts to identify and promote land conservation and active forest management.
- Build and maintain a stable contractor, consultant and private forester infrastructure that accomplish forest management.
- Provide revolving loan funds to support growth of forest products businesses.
- Provide training and mentoring for new and existing forestry and forest products businesses.
- Create mechanisms that allow small-scale operators to be more competitive.
- Seek certification for Colorado wood products.
- Pursue sustainable forest management certification for Colorado forest lands.
- Identify potential high-value uses of wood from Colorado's forests for local, national and foreign markets.
- Acquire access to funding for forest products research in Colorado.
- Conduct additional research and development needed for potential value-added products.
- Use carbon credit offsets and other incentives for environmental services provided by forests.

## **Theme: Protect Forests from Harm**

### **Threat — Insects and Diseases Affecting Colorado's Forests**

Colorado's forests are experiencing insect and disease activity that is unprecedented in our recorded history. Mountain pine beetle (MPB) has affected nearly 3 million acres of predominately lodgepole pine forests, and MPB impacts to ponderosa pine continue to increase. Sudden Aspen Decline has affected many aspen stands, especially those at lower elevations and on south-facing slopes. In addition, bark beetles are increasingly affecting spruce forests in southern Colorado, as well as other spruce forests in the state. Other insect and disease agents are affecting Douglas-fir, limber pine and other tree species in Colorado.

The forest health issues Colorado faces evolved over a number of years. While insects and diseases are a natural part of forest cycles, other factors contributed to our current situation. Fires that typically thinned forests and created a mosaic of age classes were suppressed for nearly a century. In



*Mountain pine beetle in Rocky Mountain National Park (photo by Bill Ciesla).*



*Previous treatments on the Colorado State Forest created a mosaic of age classes. Note the dead trees surrounding the young, healthy forest.*



*Spruce beetle in Rio Grande County (photo by Bill Ciesla).*

in addition, forest management decreased in Colorado over the last 30 years, especially on public lands. Climatic conditions, including extreme drought and increased temperatures, further stressed trees and allowed insect and disease activity to escalate.

An integrated approach is required to effectively address these issues and achieve our land management objectives. Forest management applied to available lands where appropriate can restore forest ecosystem function and increase species and age-class diversity. Proper planning and application makes it possible to achieve the goal of healthy and sustainable forests that meet environmental and social objectives.



*Before and after photos of forest management near Salida.*



## Threat — Wildfire in the Wildland-Urban Interface

Wildland fires and the threat they pose to our wildland-urban interface (WUI) is a major concern. The CSFS has legislative authority for fire management on non-federal lands where wildfires exceed local capacity both in and outside the WUI. The CSFS cooperates with local fire departments and other agencies in wildland fire prevention and suppression, providing ongoing support and technical and financial assistance to fire departments. The forest management advice and assistance the CSFS provides is important in reducing the occurrence and severity of wildfires that may occur in Colorado.



*Bobcat Fire near Fort Collins, Colorado, in 2000.*



*Population growth is expected to continue in the wildland-urban interface.*

Colorado's population is projected to continue to grow in the next 30 years, and much of the growth is expected to occur in the WUI. This expected growth is documented in the Colorado Statewide Forest

*Before and after photos of defensible space.*

Resource Assessment. Many of Colorado's forests are unusually dense, especially our ponderosa pine forests. Proper forest management in the intermix of forests and urban sprawl is necessary to reduce wildfire risk.

Many community values are at risk from wildfire, including life, property, watersheds and critical infrastructure. With limited resources to address these forest issues, communities across Colorado are preparing Community Wildfire Protection Plans (CWPPs) to identify and focus efforts on the most critical needs. CWPPs bring together diverse local interests to discuss their mutual concerns for public safety, community sustainability and natural resources. The information contained in the Colorado Statewide Forest Resource Assessment will help communities identify important forest landscapes and leverage additional resources to address management priorities. By combining these two information sources, communities can succinctly address areas of high concern for human values



while meeting environmental objectives. Forest management can be an effective tool to maintain the balance between human values and forest resource objectives.



*Community members work on developing the East Portal Community Wildfire Protection Plan (CWPP).*



*Roadside fuels mitigation is part of the East Portal CWPP.*

## Threat — Wildfire Outside the Wildland-Urban Interface

The Colorado Statewide Forest Resource Assessment indicates 6.8 million acres of forested land in Colorado is outside the desired range of conditions in terms of fire return interval. The significant causes are aggressive suppression of wildfire across the landscape for nearly a century and lack of management treatments that mimic natural processes. Wildfire outside the WUI can have negative consequences, particularly when it occurs in forests that are outside their normal fire return interval.



*Historical fire suppression and lack of management has created conditions for hotter and more intense fires.*

This forested landscape includes watersheds that contain reservoirs, water intakes and structures that supply drinking water. These landscapes also contain important infrastructure, including power lines and communication towers, as well as homes, farms and ranches. Throughout this forested environment, recreation activities occur that contribute to quality of life and local economies. Protection of these important values requires a sense of urgency and a cohesive fire-hazard reduction strategy.



*Beetle-killed trees surround Michigan Reservoir at the Colorado State Forest.*



The threat of wildfire transcends ownerships, and implementing an effective fire-hazard reduction strategy requires cooperation among all landowners, with special emphasis on adjacent landowners. Strong leadership by the CSFS along with continued cooperation and involvement of all interested parties is essential to reducing fire hazards. Communities with CWPPs have taken an important first step by identifying areas of local importance. Strategies that incorporate the use of prescribed fire where appropriate should first thin vegetation mechanically to reduce fuel loads prior to burning. It is important to acknowledge that prescribed fire can be expensive to apply, especially in the wildland-urban interface. Reducing the amount of forest fuels and encouraging diversity improves and enhances long-term forest resilience. Forest management can restore forest ecosystem functions while protecting human life and property, including important watersheds.



*A prescribed fire at the Bosque del Oso State Wildlife Area to reduce fuel loads.*

## Threat — Insects and Diseases Affecting Community Forests

Our community forests are at risk from a number of insects and diseases. Native and introduced insects and diseases represent significant financial and ecological threats to community forests. Community forests also face a number of biotic and abiotic challenges in the urban environment that stem from urban activities, including road improvement and maintenance, high-user traffic and seasonal changes in air quality that add to tree stress. Some community forests lack tree species diversity, which increases their risk to host-specific insects and diseases. For example, thousand cankers disease currently is affecting black walnut on Colorado's Front Range and has been rapidly changing the face of urban forests in cities like Boulder where more than 70



*Dieback in black walnut due to thousand cankers disease.*

percent of the black walnut trees have been killed. Other community forests are dominated by species at considerable risk to potential introductions of non-native pests such as the emerald ash borer or gypsy moth. The risk of future establishment by such pests as the emerald ash borer, a significant mortality agent of ash, should encourage diversification of community forest species composition.

Community and urban forests are important and valued, as they provide numerous beneficial services, including improved air quality, windbreaks, shade trees and landscape beautification. They also contribute to improved quality of life. Community tree and forest cover intercepts, slows, absorbs and stores water through normal tree functions, soil surface protection and the soil area of biologically active surfaces.

Management of urban and community forests borrows principles from traditional forestry, but relies heavily on human resources to set public policy and provide support to ensure their sustainability. The success of Colorado's community forests depends on the involvement, commitment and support of many organizations, cities and towns, citizen volunteers and green industry professionals.

### Strategies:

- Focus forest management activities to reduce impacts of wildfire, and forest insects and diseases.
- Coordinate forest management implementation among all parties affected by CWPPs.
- Encourage creation of fire-adapted communities through implementation of forest management to increase forest resiliency.
- Work with partners to enhance protection of watersheds and water supplies outside the WUI.

- Advocate landscape approaches to protect communities.
- Collaborate with land management agencies, fire protection districts and insurance organizations to develop improved standards that lead to protection of homes in the WUI.
- Maximize public and firefighter safety with improved fire suppression strategies and tactics.
- Reduce the risk of and impacts from catastrophic events, and the threats to forest health and productivity in urban forests.
- Institute a consistent approach to facilitate aggressive control of noxious weeds.
- Explore opportunities for U.S. Forest Service, Colorado State Forest Service, Department of Interior agencies and local fire jurisdictions to more efficiently distribute limited resources.
- Expand use of the Good Neighbor Authority in Colorado.
- Increase awareness and understanding of the value of ecosystem services that trees and forests provide.



*School children learn the importance of healthy forest ecosystems.*

- Identify opportunities to conserve, enhance and protect community forests and the benefits they provide.
- Implement practices and investments in community forests that conserve, protect and enhance existing community forest resources.
- Increase canopy cover in community forests to optimize benefits.

## **Tactics:**

- Create a task force of partners to coordinate dissemination of messages that promote forest health.
- Strengthen capacity of local organizations and citizen groups.
- Inform WUI residents to help them understand the importance of and need to protect critical infrastructure from wildfire.
- Protect and conserve forests through place-based collaborative wildfire councils.
- Encourage and support innovative programs for implementing forest health and fuels mitigation programs on private lands.
- Provide technical assistance to local land-use policymakers to help them identify resource impacts, as well as policy solutions to offset those impacts.
- Monitor forests for insect and disease activity to determine appropriate management response.
- Strategically place fuelbreaks to protect communities.
- Use fire as a forest management tool where appropriate and practical to restore natural ecosystem functions.
- Identify areas where fire is necessary to meet land management objectives.
- Encourage broader use of Colorado's Are You FireWise? Program and Community Wildfire Protection Plans to help restore and conserve functioning ecosystems, and to meet social and economic objectives.



*A CSFS forester teaches community members about FireWise practices.*

- Assess resource and management needs, and promote demonstration areas.



- Mitigate the impact of development and land-use change through tree planting, protection and management practices.
- Provide resources to plant and maintain trees in urban and community open space.
- Produce seedlings for conservation and reforestation purposes.
- Facilitate the adoption of green infrastructure.
- Enhance technical and professional capacity of the green industry.
- Utilize urban wood and biomass, and facilitate the utilization of urban wood waste for energy production.



*Healthy community forests provide many benefits.*

- Create awareness among urban and other end water users about the benefits of properly managed forested watersheds.

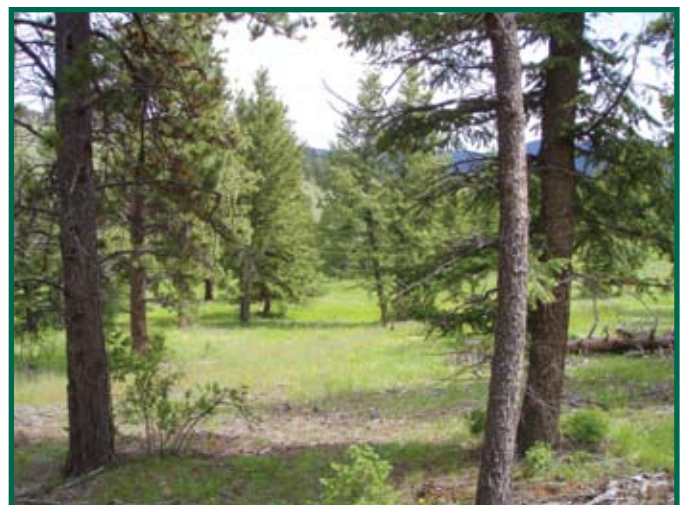
## **Theme: Enhance Public Benefits from Trees and Forests**

### **Threat — Forest Resiliency and Adaptability due to changing Climatic Conditions**

Climatic conditions directly affect forest ecosystem health. Forests are sensitive to climatic variability and change. Climatic factors that influence forest health include temperature, rainfall, atmospheric levels of carbon dioxide and other greenhouse

gases, and extreme weather conditions. These climatic factors are changing and are expected to continue to change. Other factors affecting forest health and resilience include forest density, species composition and age-class diversity. Strategies to address these factors include the design of forest stands that are more robust, resilient and flexible over time. The strategy for long-term management should identify potential risks, the bounds of uncertainty related to those risks and target management to maintain a greater range of options into the future.

Some of the actions that can be taken now include careful monitoring of our forests for evidence of the effects of change, and being prepared to adapt ongoing management plans as climate conditions evolve. Managing our forests to improve resiliency and adaptability allows forests to better respond to climate dynamics. A key approach in climate risk management is diversification of tree species mixtures and management approaches between



*Before (top photo) and after (bottom photo) fuels treatment at Eldorado Canyon State Park.*

neighboring forest stands to increase adaptive capacity and improve the overall resilience of forests. A variety of management strategies can be combined across forest landscapes on larger geographic scales.

Management strategies for forestry must be planned well in advance of expected changes in conditions, because forests regenerated today must be able to cope with future climate conditions over at least several decades, often over more than 100 years. Strategies that carefully manage species composition, diversity and age classes also can reduce the impacts of wildfire on forests.

Forest management and planning is becoming more challenging in the face of climate change. Flexible and adaptive planning that considers all conceivable scenarios and multiple options for future development may be the best alternative. The impacts of future climatic conditions on health, growth, distribution and composition of specific forests cannot be predicted with certainty, but sustainably managed forests are better able to adapt to change, and sustainable management can reduce or reverse forest loss/degradation and enhance forest resilience in the future.

### **Threat — Declining Forest Watershed Health**

Watersheds are at risk from forest conditions that may allow fire to burn more intensely and severely than under pre-settlement conditions. During the last century, fire exclusion has created forest conditions that are denser with less age-class diversity than occurred previously. These conditions increase risk of wildfire and insects and diseases, adversely affecting forests. Ponderosa pine and lodgepole pine forests are examples of forest types experiencing significant forest health issues. When lodgepole pine trees killed by mountain pine beetle fall to the ground, the threat of high-intensity, sustained fires increases, which may result in soil damage and debris flows that can affect drinking water supplies. The threat of falling trees in mountain pine beetle-infested forests also is high, placing humans and important infrastructure such as power lines at risk. When a severe and intense fire burns across these important landscapes, communities, businesses, agencies and municipalities will be among the many affected by the expense of fire suppression, as well as the associated recovery and rehabilitation efforts of watersheds and supporting infrastructure. Local



*Molas Lake near Silverton, Colorado.*

economies may suffer if recreationists choose to go elsewhere.

Forest management can positively affect these conditions by improving overall forest watershed health and conserving our supply of clean water. Partnerships between the Colorado State Forest Service and local water providers are important in prioritizing forest management activities that improve water quality and enhance protection of critical watersheds. The Colorado Statewide Forest Resource Assessment provides important information for developing new and existing watershed protection strategies.

### **Threat — Riparian Ecosystem Decline**

Riparian ecosystems are declining in many areas due to invasive species that can adversely affect water flows. These introduced species out-compete native trees and plants. Such loss of native species richness in riparian areas can adversely affect wildlife habitat, community and agricultural water supplies, and recreation.



*A healthy riparian ecosystem in southeastern Colorado.*



Persistent tamarisk and Russian olive invasion degrades riparian ecosystem health. In addition to crowding out native trees and plants, they impact the quality of wildlife species habitat, can significantly increase water consumption that is not beneficial to the surrounding ecosystem, clog stream channels by increasing sediment deposition, and reduce human enjoyment of and interaction with riparian environments.



*A tamarisk-infested riparian area in southeastern Colorado.*

Tamarisk also increases wildfire risk to surrounding communities, especially those located near river systems and/or within floodplains. These non-native plants constitute a ladder fuel in riparian ecosystems that historically was not present, increasing fire frequency and intensity. Because riparian ecosystems are not adapted to this fire behavior, it is detrimental.

Agricultural communities that depend on water supplied by riparian areas are especially concerned about the detrimental impacts these non-native invasive species may have on their personal, local and regional economies.

Proactive, integrated forest management is necessary to effectively eradicate the stubborn presence of tamarisk and Russian olive. A declining riparian ecosystem also affects water quality and suitable drinking water. As riparian ecosystem health is threatened, future water demands and water rights of individuals and communities that depend on these water supplies are adversely impacted.

### **Threat — Air Quality Issues Associated with Forest Condition**

The quality of air in the atmosphere may create stresses on our forests, either directly by damaging leaves or indirectly by affecting the ability of trees to absorb nutrients and necessary trace elements.

Our local forest ecosystems, on the other hand, constantly interact with the atmosphere to change the composition of the air around us, generally improving air quality.

Trees sequester many pollutants from the atmosphere, including nitrogen dioxide, sulfur dioxide, ozone, carbon monoxide and particulate matter of 10 microns or less. Trees store carbon as they grow. A young, actively growing forest can more efficiently sequester carbon than an old, decadent forest. Forest management in which ladder fuels are removed sets the stage for a young, productive forest by increasing age-class diversity and reducing the threat of wildfire.

Air quality is adversely affected when wildfires occur or urban forests decline. Wildfire significantly increases carbon storage release, which impacts human and wildlife health. Strategies that promote forest management, establish trees and reduce the risk of wildfire can have positive effects on air quality. Windbreaks and shelterbelts mitigate the adverse effects of soil lost through wind erosion by reducing particulate matter in the air.

Harvesting forests does not yield long-term increases in atmospheric carbon dioxide. Encouraging active new growth through proper forest management practices will sequester more carbon, allowing a continued net removal of carbon dioxide from the atmosphere if mature and less rapidly growing biomass is replaced by new, vigorously growing younger forests. Wood used for building structures and other products continues to sequester carbon and does not release carbon dioxide to the atmosphere.

### **Strategies:**

- Facilitate collaborative approaches to implement forest management activities that help protect watersheds and water supplies.
- Integrate individual and agency forest management plans at a watershed scale to enhance forest resiliency and adaptability.
- Adapt silvicultural activities to promote flexible forest response to changing climatic conditions.
- Ensure best management practices are applied to protect and enhance riparian areas.
- Promote large-scale mitigation and rehabilitation of riparian ecosystems through collaborative processes.
- Promote conservation easements that allow management around riparian areas.



*Tamarisk removal in a riparian area.*

- Promote invasive species removal from managed riparian areas.
- Ensure the availability of forest product market opportunities and resources to help revitalize forest health.
- Promote use of forest products to sequester carbon, and forest biomass to offset carbon release to protect air quality.
- Support air quality-related policies that result in more active forest management.
- Support reforestation/afforestation projects to enhance rural, urban and agricultural communities through the ecosystem services woody vegetation provides.

**Tactics:**

- Identify and develop new resources to help fund forest management treatments and information/outreach.



*A CSFS forester helps stakeholders understand the importance of healthy, functioning ecosystems.*

- Improve age-class diversity on accessible lands.
- Use FIA inventory data to make informed forest management decisions.

- Monitor effectiveness of and facilitate communication about forest management relative to increases in forest diversity.
- Assess forest responses to changing climatic conditions and update forest management plans to ensure future forest viability.
- Review current policies to determine more effective approaches to streamlining forest management processes.
- Develop a framework for developing community/ landscape-based forestry advisory groups.
- Provide information to support policies that protect riparian areas.
- Work with water providers to identify and protect forests upstream of water supplies.
- Plan multi-objective projects designed to stabilize and restore stream channels and riparian areas, provide wildlife habitat, reduce erosion and increase capacity for water use.
- Develop an information/education campaign to address the impacts of invasive species in native ecosystems.
- Address invasive species in Streamside Management Zones (SMZs) by using Best Management Practices (BMPs).
- Develop a consistent approach to facilitate aggressive control of noxious weeds.
- Evaluate invasive species in riparian areas as a source of biomass and local energy needs.
- Implement cap-and-trade programs and carbon markets where appropriate.
- Institutionalize state air quality rules that allow flexibility to permit burning.
- Use agroforestry practices where appropriate to protect and enhance the multiple benefits trees provide.



*Drip irrigation installation for newly planted trees.*



## Partners

Agricultural and Agribusiness Groups  
Environmental Groups  
Sportsman Groups  
Businesses and Industry  
Conservation Districts  
Consultants, Contractors and Private Foresters  
Corporate and Community Foundations  
Fire Districts  
Education Institutions  
Local and State Governments  
Local Communities  
Non-governmental Organizations  
Private Landowners  
Professional Societies  
Resource Conservation and Development (RC&D)  
Councils  
Service Organizations  
Special Interest Groups  
State and Federal Agencies  
Tribes  
Volunteer Groups  
Watershed Groups  
Water Providers/Boards/Districts

## Resource Needs

- Economic market opportunities for products from forest management
- Tax relief and incentives for restoration
- Incentives for noxious weed control
- Memorandums of Understanding between agencies
- Funding resources
- Staff to support forest products industry
- Statewide assessment of available wood products, including forest resources and infrastructure
- Legal and financial support for biomass production
- Resources for outreach/education programs
- Emergency watershed protection funds
- Funds to implement forest management in Colorado
- Inventory of available funding and resources
- Staff to develop wildfire planning and coordination
- Flexibility in grant programs
- Community grants
- Funds to inventory community forests
- Coordinated efforts to obtain financial resources

## Dynamic Document

It is important to note that the strategy was designed and developed as a dynamic document that will be reviewed and amended as conditions change, or at a minimum of every five years in accordance with USFS S&PF Redesign Initiative guidelines. As a dynamic document, the CSFS will develop a framework for updates, changes or adjustments as we implement the strategies — learning from our implementation experiences and adapting the strategies as we monitor their effectiveness in addressing threats to Colorado's forests.

The CSFS will continue to work with stakeholders to implement the strategy and refine the information collected during the assessment and strategy processes. This document will serve as an integrated five-year plan that will be used in the following ways when implementing Colorado S&PF programs:

1. Developing programs in consultation with forest and natural resource advisory committees (NRCS-State Technical Committee, Colorado Forest Health Advisory Council, Colorado State Forest Stewardship Coordinating Committee)
2. Developing CSFS annual work plans
3. Leveraging resources through the application of competitive grant programs
4. Partnering with other agencies and developing integrated forest and fire management program plans
5. Evaluating priorities for use of consolidated program grant funds
6. Partnering with adjacent state forestry agencies to develop projects



*Fuels treatment on the Bosque del Oso State Wildlife Area.*

## Conclusion

Managing our forest resources to meet current and future needs requires active participation from all interested stakeholders. Together, this document and the accompanying Colorado Statewide Forest Resource Assessment provide the base data and methods necessary to assist effective distribution of limited resources and leverage additional resources to meet future needs. The strategies presented in this document were developed to ensure maximum flexibility in the design of management plans and activities.

The challenge is to develop a clear vision of our desired future condition and then work together to direct resources that will achieve that condition. This will require a long-term commitment that involves monitoring and adapting strategies as conditions change. Our future forests will be shaped by the decisions we make now. We ask for your commitment in working with us to implement strategies identified in this document that will help us conserve, protect and enhance important forest resources for current and future generations.



*Colorado Youth Conservation Corps members participate in fuels treatment activities.*

## Bibliography

- Colorado Forest Restoration Institute. 2008. Forest Collaboratives in Colorado. Colorado State University: Fort Collins, CO.
- Colorado Forest Restoration Institute. 2009. 2009 report to the Governor's Forest Health Advisory Council: forest collaboratives in Colorado. Colorado State University: Fort Collins, CO.
- Colorado State Forest Service (CSFS). 2009. Colorado Statewide Forest Resource Assessment: A Foundation for Strategic Discussion and Implementation of Forest Management in Colorado.
- Colorado State Forest Service (CSFS). 2010. Colorado Statewide Forest Resource Assessment and Strategy – Focus Group meetings. Power Point presentation.
- Colorado Review: Water Management and Land Use Planning Integration. Retrieved May 27, 2010, from <http://cwcbweblink.state.co.us/WebLink/ElectronicFile.aspx?docid=139880&searchid=d3b8b904-52e2-4290-95d1-0ceab55f0494&dbid=0>.
- Colorado Water Conservation Board River Basin Fact Sheets. Retrieved May 27, 2010, from <http://cwcb.state.co.us/Home/RiverBasinFacts/>.
- Colorado Water Conservation Board Strategic Plan. Retrieved May 27, 2010, from <http://cwcb.state.co.us/NR/rdonlyres/8A9400AC-593D-4F10-9D43-5AC651414D6D/0/CWCBStrategicPlan.pdf>.
- Natural Resource Conservation Service. Overview and History of Hydrologic Units and the Watershed Boundary Dataset (WBD). Retrieved April 17, 2010, from <http://www.ncgc.nrcs.usda.gov/products/datasets/watershed/history.html>.
- Tyrell, M. and G. Dunning (2000). Forestland Conversion, Fragmentation, and Parcelization. Yale Forest Forum Series 3(6): 6.
- United States Forest Service (USFS). 2008. Farm Bill Requirement & Redesign Components: State Assessments & Resource Strategies, Final Guidance. Retrieved April 18, 2010, from [http://www.fs.fed.us/spf/redesign/state\\_assess\\_strategies.pdf](http://www.fs.fed.us/spf/redesign/state_assess_strategies.pdf)



# Appendix A

## Collaborative Groups

The following list of groups have developed plans that address forest management, habitat and wildlife management, watershed restoration and/or water infrastructure, invasive species, overall ecosystem management or mitigation of landscape fragmentation.

### Burn Canyon Monitoring Task Force

Burn Canyon, San Miguel County

*Focus:* Community monitoring of the Burn Canyon salvage sale on the GMUG national forest.

[http://www.publiclandpartnership.org/plp/burn\\_canyon/burn\\_canyon.htm](http://www.publiclandpartnership.org/plp/burn_canyon/burn_canyon.htm)

### Coalition for the Upper South Platte

Upper South Platte (2,600 square miles)

*Focus:* Redevelopment of Northwest Fire Protection District (Park County) CWPP; coordination of the Woodland Park Healthy Forest Initiative; community outreach and education programs; and development of a neighborhood fuels reduction program.

<http://www.uppersouthplatte.org/>

### Colorado Bark Beetle Cooperative

Eagle, Garfield, Grand, Jackson, Lake, Park, Pitkin, Routt and Summit counties

*Focus:* Provide information to influence policy regarding actions to address fire and beetle impacts; promote regional collaboration between the U.S. Forest Service, Bureau of Land Management, National Park Service, Colorado State Forest Service, Northwest Colorado Council of Governments and non-governmental organizations to address forest health and community economic development.

<http://www.nwc.cog.co.us/index.php/affiliated-programs/colorado-bark-beetle-cooperative/>

### Culebra Range Community Coalition

Costilla, Huerfano and Las Animas counties

*Focus:* In process of collaboratively developing mitigation plan with watershed partners to restore forest health, wildlife habitat, mitigate fire risk and facilitate wood products businesses.

<http://www.cooperativeconservationamerica.org/viewproject.asp?pid=700>

### Estes Valley Forest Issues Forum

Estes Valley

*Focus:* Promote coordination and communication among federal and state agencies and communities in the Estes Valley.

### Forest Health Coalition

Las Animas and Huerfano counties

*Focus:* CWPP development and fuels mitigation.

### Front Range Roundtable

10 Front Range counties (includes Grand County)

*Focus:* Address fire mitigation issues across 10 Front Range counties; developed vision and roadmap documents in 2006 for implementing fire mitigation and forest restoration efforts across this landscape.

<http://www.frontrangeroundtable.org/>

### Lake County Forest Health Task Force

Lake County

*Focus:* Identification and removal of mountain pine beetle brood trees to slow spread of mountain pine beetle in Lake County.

### Northern Front Range Mountain Pine Beetle Working Group

Boulder, Gilpin, Jefferson, Larimer and Clear Creek counties

*Focus:* Outreach to public; develop coordination across agencies by compiling GIS information across boundaries; serve as a centralized source for mountain pine beetle-related information to the public.

<http://www.frftp.org/nfrpinebeetle.htm>

### Ponderosa Pine Forest Partnership

Dolores, San Juan and Archuleta counties

*Focus:* No longer a functioning organization; however, individual partner efforts continue, including forest restoration efforts, CWPP planning and conservation of working lands.

## **Public Lands Partnership**

Delta and Montrose counties

*Focus:* Primarily a venue for communication and collaborative discussions between federal and state agencies, and diverse community interests concerning issues such as wildlife habitat, forest restoration, public access and forest planning issues.

<http://www.publiclandspartnership.org/>

## **Roaring Fork Valley Forest Coalition**

The Roaring Fork Valley

*Focus:* A partnership across agencies used to prioritize forest stewardship plans on and off USFS lands.

<http://www.aspenpitkin.com/Portals/0/docs/county/BOCC/bocc%20packets/roaring%20fork%20valley%20forest%20coalition.pdf>

## **Summit County Forest Health Task Force**

Summit County

*Focus:* A collaborative working group involved in outreach and education, forest restoration projects and economic development.

<http://www.summitpinebeetle.org/contact-us>

## **Tackling Tamarisk on the Purgatoire Project**

The Lower Purgatoire River Watershed

*Focus:* Develop and implement a management plan for invasive species control on the Lower Purgatoire River.

<http://csfs.colostate.edu/pages/lajunta-tamarisk-mgmt.html>

## **The New Community Coalition**

San Miguel County

*Focus:* Public outreach and education concerning local environmental issues.

<http://www.newcommunitycoalition.org/>

## **Uncompahgre Mesa Forest Restoration and Demonstration Project**

Grand Mesa, Uncompahgre and Gunnison National Forest

*Focus:* Assist in the development and implementation of collaborative forest restoration efforts on the Uncompahgre Mesa on GMUG National Forest.

[http://www.upproject.org/landscape\\_assessments/unc\\_mesas.htm](http://www.upproject.org/landscape_assessments/unc_mesas.htm)

## **Uncompahgre Plateau Project**

Grand Mesa, Uncompahgre and Gunnison National Forest

*Focus:* Coordinate cross-jurisdictional ecological restoration, public outreach and education efforts associated with the GMUG National Forest.

<http://www.upproject.org/>

## **Woodland Park Healthy Forest Initiative**

Woodland Park

*Focus:* A pilot project of the Front Range Roundtable to demonstrate forest restoration and biomass utilization efforts on the Pike and San Isabel National Forests.

<http://www.wphfi.org/>

## **Colorado Riparian Association**

Colorado

*Focus:* Promote the conservation, restoration and preservation of Colorado's riparian areas and wetlands.

<http://webspinners.com/riparian/>





*For more information about the Colorado  
Statewide Forest Resources Assessment  
and Strategy, visit the CSFS website at  
[www.csfs.colostate.edu](http://www.csfs.colostate.edu)*